Ir ational Application No
PCT/EP2004/001094

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 F16L1/12 E02D E02D9/04 E21B29/12 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 F16L E02D E21B B23D Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° 2 X US 5 044 827 A (GRAY DAVID A 3 September 1991 (1991-09-03) column 1, line 7 - line 12 3-6 14-19 column 2, line 9 - line 27 column 9, line 45 - line 60 column 3, line 1 - line 5 column 3, line 56 -column 6, line 56 column 7, line 60 - line 67 claims 1,3,7,10 figures 1-3,7-15 -/--Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docudocument referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 04/06/2004 24 May 2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo ni, Fax: (+31–70) 340–3016 Jankowska, M

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